Botrychium matricariifolium A. Br., New to the Flora of Delaware, with Additional Records from Maryland and West Virginia

CLYDE F. REED

One of the most elusive ferns in our region is *Botrychium matricariifolium*[1] A. Br. Clausen (1938) did not mention in his records nor indicate on map 16 any localities for this fern in either Delaware or West Virginia. Tatnall (1946) did not mention this species for any of the three states of the Delaware Peninsula. However, Reed (1956, 1960) found this species in Accomac County, Virginia, the most southern locality in coastal eastern United States. Brooks (1938) did not mention this fern in the fern flora of West Virginia. However, Strausbaugh and Core (1952) list this species from Preston, Hardy, and Grant Counties, West Virginia. Reed (1953, 1956) outlined the distribution of this species in Maryland.

In Delaware the author found about two dozen plants of *Botrychium matricariifolium* in a woods along a creek on Beaver Valley Road (which is east of Brandywine Creek and east of Granogue) in New Castle County. This area of New Castle County is on the Piedmont, south of Delaware County, Pennsylvania, where the species was recorded by Clausen (1938). The Delaware specimens were collected on June 22, 1961, *Reed* 50979. Seven specimens were collected and all were fruiting. Two of the plants are of interest as there are some sporangia on the otherwise sterile portion of the fronds. These specimens measured 11, 13, 14, 17, 19.5, 20 and 22 cm. in height.

---

[1] The original spelling was "*matricariaefolium*" but this is not in accord with the rules in the International Code of Botanical Nomenclature. Recommendation 73G states that in compounds of Latin words, the final vowel of the first element in the compound is reduced to "*i*." (The example given is "*salviifolius*" from "*Salvia*" and "*folius*".) Article 73, Note 2, reads, "The use of a wrong connecting vowel . . . is treated as an orthographic error," and the main part of Article 73 reads, "The original spelling of a name or epithet must be retained, except that orthographic errors should be corrected." Therefore, the original spelling "*matricariaefolium*" should be corrected to "*matricariifolium*."

In West Virginia the author found about a dozen plants along the edge of a woods, four miles south of Cranesville Swamp, on the road to Terra Alta, Preston County. Four fruiting specimens were collected on June 16, 1961, *Reed* 50893, and measured 11, 12, 14, and 17.5 cm. in height.

In addition to the previously recorded specimens from Garrett County, Maryland (Reed, 1956), another fruiting specimen of this fern was found at the edge of a woods just west of Oakland. It was collected on June 16, 1961, *Reed* 51015, and measured 17.5 cm. in height. This record is near West Virginia and is in western Garrett County, whereas the other record is in the northeastern part of Garrett County near Finzel on Savage Mountain. All specimens cited are in the Reed Herbarium, in Baltimore.

Our present knowledge of the southern limit of distribution of *Botrychium matricariifolium* is as follows: TENNESSEE: along Huskey Gap Trail, Great Smoky Mountains National Park (O'Dell, 1961); VIRGINIA: Accomac County on the Delmarva Peninsula, in the Blue Ridge Mountain of Fauquier County (US 1871659) and in Rockingham and Page counties Anne Arundel and Prince Georges counties, and in the Allegheny Mountains of Preston, Grant, and Hardy counties; MARYLAND: on the Piedmont Plateau of Baltimore, Howard, Carroll, and Montgomery counties, on the Inner Coastal Plain in Anne Arundel and Prince Georges counties, and in the Allegheny Mountains in Garrett County; DELAWARE: on the Piedmont Plateau in New Castle County.

LITERATURE CITED

BROOKS, M. G. 1938. The Pteridophytes of West Virginia. W. Va. Univ. Bull. ser. **39**, no. **2**: 1–60.

CLAUSEN, R. T. 1938. A Monograph of the Ophioglossaceae. Mem. Torrey Club **19**: 1–177.

MASSEY, A. B. 1960. The Ferns and Fern-Allies of Virginia. 3rd ed. Bull. 256, Virginia Polytechnic Institute Agr. Ext. Service, Blacksburg, Va.

O'DELL, H. 1961. An Addition to the List of Ferns Found Growing Naturally in Tennessee. Amer. Fern Jour. **51**: 156.

REED, C. F. 1953. The Ferns and Fern-Allies of Maryland and Delaware, Including the District of Columbia. Reed Herbarium, Baltimore, Md.

———. 1956. New County Records for *Botrychium matricariaefolium* in Maryland and Delmarva. Amer. Fern Jour. **46:** 148–151.

———. 1960. The Ferns and "Fern-Allies" of Accomac and Northampton Counties, Virginia and Adjacent Maryland. Castanea **25:** 109–116.

STRASBAUGH, P. D. and E. L. CORE. 1952. Flora of West Virginia. I. W. Va. Univ. Bull. ser. **52**, no. **12-2:** 1–273.

TATNALL, R. R. 1946. Flora of Delaware and the Eastern Shore. Society of Natural History of Delaware.

HOWARD UNIVERSITY, WASHINGTON, D. C.

Cytotaxonomy of the Isoetes echinospora Complex[1]

ÁSKELL LÖVE

INTRODUCTION

The quillworts, or the genus *Isoëtes*, are among those fern-allies that are in great need of cytotaxonomical and experimental revision. Though Linnaeus (1753) recognized only a single species, later authors have generously described new species of this group even from very limited collections, with the result that Reed (1953) recognized over 610 names, representing, in the view of Lawrence (1951), only about 60 species. It is evident from the studies by Iversen (1928a,b) that several of the characters used for the separation of many of these taxa are taxonomically doubtful, and there is reason to believe that a few are only occasional edaphic modifications. Some are evidently good races which ought to be treated at the varietal or subspecific level, whereas still others are undoubtedly very good species.

Distinguishing four sections on the basis of surface characters of the megaspores, as proposed by Pfeiffer (1922), may be apparent rather than natural, but the morphological characters used in separating the monotypic genus *Stylites* (Amstutz, 1957) seem to be genuine. Though the distinction and relationship of Isoëtaceae to other ferns and fern-allies have been widely dis-

[1]Research supported by the National Research Council of Canada and by grant No. 69 of the NATO Science Grants Programme.